U.S. Department of Homeland Security

United States Coast Guard

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16113
July 12, 2006

Mr. Richard Farris
Division Chief
U.S. Department of the Interior
Fish and Wildlife Service
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, CA 93003

Dear Mr. Farris:

In accordance with Section 7 of the Endangered Species Act, as amended, the U.S. Coast Guard (USCG) seeks to finalize informal consultation with the United States Fish and Wildlife Service (USFWS) Ventura Fish and Wildlife office regarding operation of the proposed Cabrillo Port Deepwater Port and the construction of the associated pipeline.

The proposed port would be located approximately 14 miles off Ventura County, at the inshore side of the Southern California Bight (see Figure 1). BHP Billiton (the applicant) has proposed a floating, storage, and regasification unit (FSRU) as its facility for receiving liquefied natural gas (LNG), transforming it back to its gaseous state and sending it ashore via offshore pipeline. The regasification process would be a controlled heating process consisting of a closed system with combustion vaporizers, and will not require the use of seawater. The proposed route for the two parallel off-shore pipelines would connect the FSRU to the shore at the existing Reliant Energy Ormond Beach Generating Station in Ventura County (see Figure 1). Two new onshore pipelines-the Center Road Pipeline in Oxnard and Ventura County and the Line 225 Loop Pipeline in Santa Clarita in Los Angeles County-would be constructed to connect the offshore pipeline with the existing Southern California Gas (SoCalGas) intrastate pipeline system to distribute the natural gas to customers throughout the Southern California region (see Figures 2 and 2a). The USCG has reached specific conclusions regarding impacts for each protected resource under USFWS jurisdiction that might result from the construction and operations of the proposed deepwater port and pipeline. The USCG seeks your concurrence.

The USCG and the California State Lands Commission have jointly developed a Draft Environmental Impact Statement/Draft Environmental Impact Report (DEIS/DEIR) on this proposed project. The proposed project has three distinct phases: construction of the two parallel offshore pipelines, construction of the onshore pipelines, and the mooring and operation of the FSRU. The offshore pipelines will take approximately 35 days for construction. The construction of the onshore pipelines will take approximately 9 months. The Center Road Pipeline and the Line 225 Loop Pipeline will be constructed concurrently. The anchoring of the FSRU will take approximately 20 days. The FSRU is expected to operate for 40 years. For the purposes of this consultation, we will focus on the shore crossings and construction of the onshore pipelines.

Subj: Cabrillo Port Deepwater Port Section 7 Consultation

In order to fully understand the potential impacts of the onshore construction for the proposed Cabrillo Port project, the USCG submitted the DEIS/DEIR to the USFWS Ventura Fish and Wildlife office and USFWS headquarters for comment. Our primary concern was to determine whether the onshore pipelines shore crossings and the construction of the Center Road and/or the Line 225 Loop pipelines, were likely to adversely affect species listed under the authority of the Endangered Species Act. The following serves as the Coast Guard conclusion for all known species.

Birds

- Southwestern willow flycatcher (*Empidonax traillii extimus*) – Endangered

  The Center Road Pipeline route traverses agricultural fields, commercial and urban residential areas, which provide limited habitat. It is proposed that this pipeline be installed under the existing roadway. The Line 225 Loop Pipeline would be installed within existing road rights-of-way (ROW) that traverse industrial and open natural areas within the Santa Clarita Valley. The pipeline will also be installed in the existing ROW and within existing bridges across the Santa Clara River and San Francisquito Creek (see Figure 3). The applicant will be required to develop a Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP); develop an Employee Environmental Awareness Program (EEAP); use a qualified biological monitor on-site; confine activities to the identified rights-of-way; and avoid, minimize, and compensate for impacts on riparian habitat (see Attachments 1-4). Therefore based on the low potential for occurrence and the construction and mitigation measures identified above, the Southwestern willow flycatcher is not likely to be adversely affected by the construction and operation of the Center Line and Line 225 Loop pipelines.

- Least Bell's vireo (*Vireo bellii pusillus*) – Endangered; designated Critical Habitat

  Although full survey methods could not be met in the June-July 2005 surveys, because USFWS established protocols require appropriate time periods and frequently repeated surveys before a species can be considered absent from the project area, the biological survey does provide sufficient information to delineate the limits and quality of habitat and to justify species within the ROW (see Figures 4 and 4a). The surveys identified suitable habitat along the Santa Clara River, but during the surveys in June-July the species was not observed. A literature review and information from the USFWS and the California Department of Fish and Game (CDFG) identified a known breeding colony 2 miles (3.2 km) downstream of the ROW. Because a known colony exists within the vicinity of the proposed project area and suitable habitat is present at the Santa Clara River in Ventura and Los Angeles counties, the species is assumed to be present in the ROW. The species also has the potential to occur at the South Fork Santa Clara River, and San Francisquito Creek. To protect this species, the applicant will be required to avoid construction during the nesting season April 1 to August 15. In addition, the

applicant will also be required to follow the mitigations outlined in Attachments 1-4. Therefore, the proposed project is not likely to adversely affect this species or its designated critical habitat.

- Western snowy plover (*Charadrius alexandrinus nivosus*) – Threatened; proposed Critical Habitat

  Critical habitat for the Pacific Coast population of the western snowy plover has been designated in Ventura County along Ormond Beach, which has been divided into subunits. The proposed Center Road Pipeline Route crosses a subunit that begins near the cities of Oxnard and Port Hueneme and ends along the coastline at Arnold Road near the boundary of the Naval Base Ventura County, Point Mugu. Although full survey methods could not be met in the June-July 2005 surveys, because FWS established protocols require appropriate time periods and frequently repeated surveys before a species can be considered absent from the project area, the biological survey does provide sufficient information to delineate the limits and quality of habitat and to justify species within the ROW (see Figure 5). Specifically, this survey did not investigate the western snowy plover so as not to disturb the documented nesting birds on Ormond Beach. Because suitable habitat exists in the vicinity of the ROW and western snowy plovers have been documented nesting along the ROW, the species is assumed to be present along the ROW. The applicant will be required to avoid disturbing nesting birds by conducting construction activities outside the nesting season and follow the mitigations outlined in Attachments 1-3 and 5. Short-term impacts from construction noise and lights are not considered significant because species using the area have become acclimated to the noise and light generated by the operations of the Reliant Energy Mandalay Generating Station. Therefore, the proposed project is not likely to adversely affect this species or its proposed critical habitat.

- California brown pelican (*Pelecanus occidentalis californicus*) – Endangered

  In the Southern California Bight, California brown pelicans are known to nest on Anacapa and Santa Barbara Islands. At these Channel Islands, breeding generally takes place from March through early August; fledging takes place approximately 13 weeks later. No critical habitat has been established for this species. The California brown pelican are common in the Southern California Bight year-round and will be seen throughout the region and within and near the proposed Project site (see Figure 6). The mean at-sea density (birds per $km^2$) throughout the proposed project area was estimated to be 0.3 pelicans per $km^2$ in July and December. During consultations with the Channel Island National Marine Sanctuary (CINMS) Sanctuary Manager (Mobley, August, 2004) installation of the FSRU and the pipelines were found to not be inconsistent with the sanctuary. Therefore, the proposed project is not likely to adversely affect this species.

Subj: Cabrillo Port Deepwater Port Section 7 Consultation

- Coastal California gnatcatcher (*Polioptila californica californica*) – Endangered; proposed Critical Habitat

  Habitat for the gnatcatcher occurs from milepost 0 to milepost 1.3 along the proposed Line 225 Loop Pipeline Route (see Figure 7). Qualified personnel from James Greaves Consulting repeatedly conducted surveys in June and early July 2005. Some areas of the ROW could not be surveyed, since landowners would not grant access. In those areas were access was granted, no gnatcatchers were found. However, since suitable habitat exists along this pipeline route, it is assumed that gnatcatchers are present within the ROW. To protect this species, the applicant will be required to avoid construction during the nesting season. In addition, the applicant will also be required to follow the mitigations outlined in Attachments 1-5. Therefore, the proposed project is not likely to adversely affect this species or its proposed critical habitat.

- California least tern (*Sterna antillarum browni*)- Endangered

  Although full survey methods could not be met in the June-July 2005 surveys, because FWS established protocols require appropriate time periods and frequently repeated surveys before a species can be considered absent from the project area, the biological survey does provide sufficient information to delineate the limits and quality of habitat and to justify species presence. Suitable habitat was found for the least tern at the Reliant Ormond Beach Generating Station site (see Figure 5). However, no specific surveys were conducted at this site to avoid any disturbance to the documented nesting birds on Ormond Beach. This 2005 survey also documented nesting habitat from Harbor Road east of the dunes until the ROW heads east on Gonzales Road. Because suitable habitat exists in the vicinity of the ROW, and least terns have been documented nesting along the ROW, the species is assumed to be present along the ROW. The applicant will be required to avoid disturbing nesting birds by conducting construction activities outside the nesting season and follow the mitigations outlined in Attachments 1-5. Short-term impacts from construction noise and lights are not considered significant because species using the area have become acclimated to the noise and light generated by the operations of the Reliant Energy Mandalay Generating Station. Therefore, the proposed project is not likely to adversely affect this species.

- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) – Candidate

  Individuals have been documented near the mouth of the Santa Clara River within the Line 225 Loop Pipeline route from milepost 0.0 to milepost 7.2 (see Figure 3). Since suitable habitat exists along this pipeline route, it is assumed that the cuckoos are present within the ROW. To protect this species, the applicant will be required to avoid construction during the nesting season. In addition, the applicant will also be required to follow the mitigations outlined in Attachments 1-5. Therefore, the proposed project is not likely to adversely affect this species.

Subj: Cabrillo Port Deepwater Port Section 7 Consultation

Amphibians

- Arroyo toad (*Bufo californicus*) – Endangered

Although full survey methods could not be met in the June-July 2005 surveys, because FWS established protocols require appropriate time periods and frequently repeated surveys before a species can be considered absent from the project area, the biological survey does provide sufficient information to delineate the limits and quality of habitat and to justify species presence. The arroyo toad is known to occur within side canyon tributaries that flow into the Santa Clara River. Known populations have been detected upstream of the ROW. The arroyo toad has also been observed west of the confluence of San Francisquito Creek and the Santa Clara River (Newhall Ranch Project). An individual has been found at the Santa Clara River east of Interstate 5. Suitable habitat occurs at the Santa Clara River crossing from mile post 5.2 and mile post 5.8 on the proposed Line 225 Loop Pipeline route. The Santa Clara River was surveyed in June 2005 for the presence of the arroyo toad, but none were observed. However, due to the presence of the species upstream from the ROW and the fact that suitable habitat is present at mile post 5.2 and mile post 5.8, the species is assumed to be present within the ROW (see Figure 4). The applicant will be required to follow the mitigations as outlined in Attachments 1-8. Therefore, based on the above mitigations, the proposed project is not likely to adversely affect this species.

Fish

- Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) – Endangered

The proposed Line 225 Loop Pipeline Route crosses the San Francisquito Canyon significant ecological area (SEA). This SEA was established by Los Angeles County to preserve habitat associated with the unarmored threespine stickleback. Within the SEA, the recognized habitats are two separate stream reaches of the Santa Clara River and a short reach of the San Francisquito Canyon. The Santa Clara reaches are separated by an independent reach from the Interstate 5 highway bridge up to Lang Canyon. The proposed Santa Clara crossings would occur within this separate reach. This specific reach was not included as essential habitat because of its intermittent nature during the dry season. When the reach experiences flow, the unarmored threespine stickleback can occur in the low-gradient channel.

In San Francisquito Canyon, unarmored threespine stickleback essential habitat is located from the southern boundary of the Angeles National Forest upstream approximately 8.4 miles (13.5 km) to San Francisquito Powerhouse No. 1 near the junctions with Clearwater Canyon (see Figure 8). The proposed pipeline crossing at San Francisquito Creek is downsteam of this essential habitat designation. When the reach of San Francisquito Creek within the proposed project area experiences flow, unarmored threespine stickleback habitat can exist in the sandy substrate of the low-gradient

channel. As such, unarmored threespine sticklebacks most likely occur within this reach only as migrants during the wet season.

A direct impact on the species is not expected for the South Fork Santa Clara River because the pipeline would be installed in a closed girder bridge. The pipelines at the Santa Clara River and San Francisquito Creek crossings would be installed in the open girder bridges. Indirect impacts that may occur include increased sedimentation and increased turbidity from water used during the construction procedure for the closed girder bridge crossings. The minor volume of water that may seep through during construction would be captured in buckets placed beneath all seeps into the dry river bed, thereby reducing or eliminating any indirect impacts to the species.

The remaining water crossings would be trenched, and a tributary to the South Fork Santa Clara River would be crossed using a slick bore. The use of the slick bore to cross the South Fork Santa Clara River would not require the use of any drilling fluids, thereby avoiding any sedimentation, turbidity, or erosion impacts within the bed and back of the drainage.

The applicant will be required to implement a number of erosion control measures and develop spill containment/management program as well as follow the additional mitigations as outlined in Attachments 1-3, 5, and 7-10. The applicant will also be required to have construction monitors and fish handlers to remove fish within the construction area and/or deter fish from the area by diverting water or installing blocking nets. Therefore, based on the above mitigations, the proposed project is not likely to adversely affect this species.

- Tidewater goby (*Eucycloglbius newberryi*) – Endangered

A 1998 bioassessment study of Mugu Lagoon documented the presence of the Tidewater goby. The agricultural drain that would cross at milepost 0.25 of the proposed Center Road Pipeline route flows indirectly into Mugu Lagoon and the Pacific Ocean within 1 mile (1.6 km) of the ocean. This drainage could contain the tidewater goby (see Figure 5). To minimize any impacts on the goby and other aquatic species within the drainage, the applicant will install the pipeline with slick bore technology. This method does not require the use of any drilling fluids, thereby avoiding any sedimentation, turbidity, or erosion impacts within the bed and bank of the drainage. However, this method would require excavation of entry and exit pits on both sides of the water feature. To minimize soil erosion along the banks of the water feature, the applicant will be required to follow the measures in the Stormwater Pollution Prevention and Containment Plan (SWPPP), and other mitigative measures contained in Attachments 1, 2, 8, 9, and 10 which would include silt fence and straw bale sediment barriers around the bore pits, as needed to control sediment runoff. Therefore, based on the mitigations identified in the SWPPP, the proposed project is not likely to adversely affect this species.

- Southern steelhead (*Oncorhynchus mykiss irideus*) – Endangered

  The Southern steelhead has been identified as an Evolutionary Significant Unit (ESU). The ESU includes all naturally spawned populations of steelhead (and their progeny) from the Santa Maria River to Malibu Creek (see Figure 6). Steelhead occurs in the Oxnard Plain, but is not expected to occur close to the surface where the FSRU would be located. Steelhead has not been identified in the Santa Clara River east of Piru Creek. Therefore, based on the low likelihood of occurrence, the proposed project is not likely to adversely affect this species.

Plants

- Salt marsh bird's beak (*Cordylanthus maritimus* ssp. *Maritimus*) – Endangered

  The salt marsh bird's beak potentially occurs within 1,000 feet (305 m) of the proposed Center Road Pipeline Route near the beach adjacent to the Reliant Energy Ormond Beach Generating Station, although it was not observed during the 2005 plant survey (see Figure 5). Pipeline installation would occur 35 feet (10.7 m) below the ground surface, avoiding any permanent loss of individual plants. If a release of drilling fluids were to occur during drilling operations, the applicant will be required to implement the Horizontal Directional Boring (HDB) Contingency Plan (see Attachment 7; other mitigative measures are found in attachment 1-3, 5, 9-11). Measures include the cessation of drilling operations and that the USFWS and CDFG are contacted to develop measures to clean up the release site without any further impacts. This species was not identified in the remainder of the ROW. Therefore, based on the depth of pipeline construction and the mitigations contained in the HDB Contingency Plan and other mitigative measures, the proposed project is not likely to adversely affect this species.

- Slender-horned spineflower (*Dodecahema leptoceras*) – Endangered

  Historical records from the California Natural Diversity Database (CNDDB) listed the slender-horned spineflower as occurring throughout the potential project area in 1937. Surveys done in 1979 and 1983 did not locate the populations identified in the 1937 surveys. Most areas identified in the historical surveys have since been developed, reducing the species potential for occurrence along the ROW. The species was not observed during the 2005 spring and summer plant surveys (see Figure 8). However, the applicant will be required to undertake spring surveys for this species, and include any avoidance and/or mitigations in the BRMIMP (see Attachments 1- 4 and 11). Therefore, given the low likelihood of occurrence and the mitigation measure identified above, the proposed project is not likely to adversely affect this species.

Subj: Cabrillo Port Deepwater Port Section 7 Consultation

- San Fernando Valley spineflower (*Chorizanthe parryi* var. *Fernandina*) – Candidate

  A population of the San Fernando Valley spineflower has been documented in the immediate vicinity of the ROW near milepost 5.2 (see Figure 8). The species has been documented north of the proposed Line 225 Loop Pipeline approximately 0.6 mile (1 km) at the end of the Newhall Ranch Road. The species was not observed during the 2005 spring or summer plant surveys. However, the applicant will be required to undertake spring surveys for this species and include any avoidance and/or mitigations (see Attachments 1-4 and 11). Therefore, given the low likelihood of occurrence and the mitigation measure identified above, the proposed project is not likely to adversely affect this species.

- Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*) – Endangered

  No populations of the Ventura marsh milk-vetch have been documented in the vicinity of the Center Road Pipeline or the Line 225 Loop Pipeline routes. Therefore, given the low likelihood of occurrence, the proposed project is not likely to adversely affect this species.

To summarize, the results of the environmental analysis of the location, construction of the on-shore pipeline crossing, the Center Road Pipeline route, and the Line 225 Loop Pipeline route would not have a significant impact on listed or candidate species or proposed or critical habitat. The relevant criterion that lead to that conclusion are:

1. The operation of the Deepwater Port is not likely to adversely affect listed species or critical or proposed critical habitats.
2. The construction of the on shore pipelines (approximately 9 months) will result in short term, minor impacts.
3. The proposed route (Center Road Pipeline route and Line 225 Loop Pipeline route) is overall less environmentally damaging than the proposed alternatives as identified in the DEIS/DEIR.
4. Wherever possible, avoidance measures (boring under streams, placing pipes in bridges, etc) have been identified and committed to in the EIS to protect listed and candidate species and their habitats.
5. Although species protected under the Endangered Species Act are present or suspected of being present, sufficient avoidance and mitigation measures as outlined in the various plans (see Attachments) will be in place to protect such species, or identify mitigative actions to minimize potential impacts.

16113
July 12, 2006

Subj: Cabrillo Port Deepwater Port Section 7 Consultation

If you have any questions, please contact me or Ms. Joan Lang at (202) 372-1452.

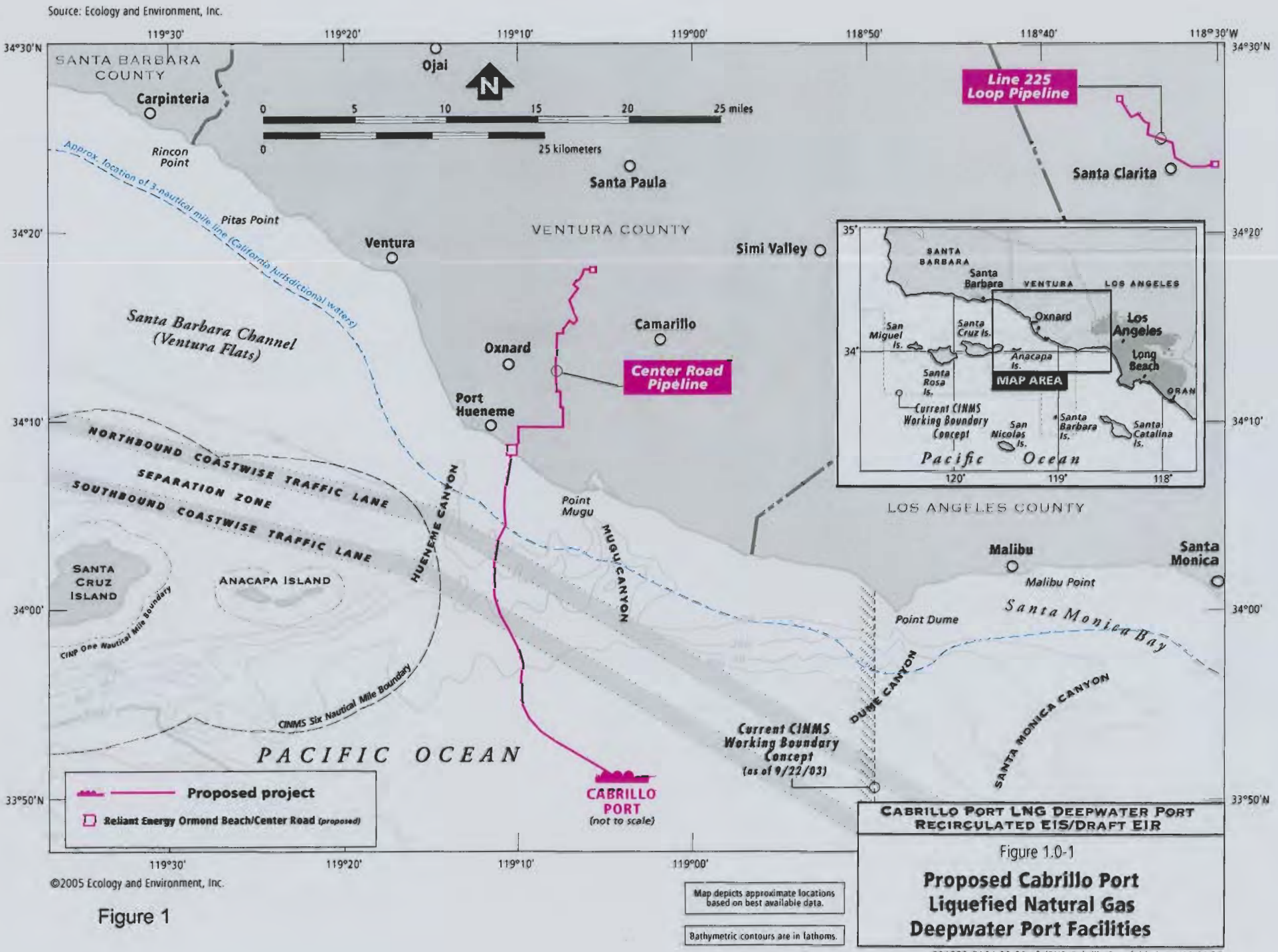
Sincerely,

M. A. PRESCOTT
Chief, Deepwater Ports Standards Division
U.S. Coast Guard
By direction

Figures:
(1) Proposed Cabrillo Port Liquefied Natural Gas Deepwater Port Facilities
(2) Center Road Pipeline: Proposed and Alternate Routes
(2a) Line 225 Loop Pipeline: Proposed and Alternate Routes
(3) Suitable Habitat for the Yellow-billed Cuckoo and Southwestern Willow Flycatcher near the Proposed Pipeline Route and its Alternative, Los Angeles County
(4) Potential Locations of Suitable Habitat for Arroyo Toad, Least Bell's Vireo, and Western Spadefoot Toad in the Project Area, Los Angeles County
(4a) Critical Habitat for Least Bell's Vireo in the Project Area, Los Angeles County
(5) Special Status Plants, Wildlife, and Natural Communities within a Five-Mile Radius of the Proposed Pipeline and its Alternatives, Ventura County
(6) Habitat Locations for California Brown Pelican and Southern California Steelhead ESU
(7) Potential Suitable and Proposed Critical Habitat for the Coastal California Gnatcatcher in the Project Area, Los Angeles County
(8) Special Status Plant, Wildlife, and Natural Communities within a Five-Mile Radius of the Pipeline and its Alternative, Los Angeles County

Attachments:
(1) Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP)
(2) Employee Environmental Awareness Program (EEAP)
(3) Biological Monitoring
(4) Confine Activity to Identified Right-of-Way (ROW)
(5) Pre-Construction Wildlife Surveys
(6) Riparian Avoidance and Restoration
(7) Drilling Fluid Release Monitoring Plan
(8) Spill Response Plan (Stormwater Pollution Prevention and Containment Plan (SWPPP)
(9) Spill/Containment Management
(10) Erosion Control
(11) Pre-Construction Plant Surveys

Copy:
A. Szjii, ACOE, Ventura Field Office
M. DeAngelis, NOAA/NMFS
A. Zimpfer, EPA Region 9
K. Lesnick, MARAD


Source: Ecology and Environment, Inc.
119°30'
119°20'
119°10'
119°00'
118°50'
118°40'
118°30'W
34°30'N
34°20'
34°10'
34°00'
33°50'N
SANTA BARBARA COUNTY
VENTURA COUNTY
LOS ANGELES COUNTY
Ojai
Carpinteria
Rincon Point
Pitas Point
Ventura
Santa Paula
Simi Valley
Santa Clarita
Line 225 Loop Pipeline
Approx. location of 3-nautical mile line (California jurisdictional waters)
Santa Barbara Channel (Ventura Flats)
Camarillo
Oxnard
Port Hueneme
Center Road Pipeline
NORTHBOUND COASTWISE TRAFFIC LANE
SEPARATION ZONE
SOUTHBOUND COASTWISE TRAFFIC LANE
HUENEME CANYON
Point Mugu
MUGU CANYON
SANTA CRUZ ISLAND
ANACAPA ISLAND
CINP One Nautical Mile Boundary
CINMS Six Nautical Mile Boundary
PACIFIC OCEAN
Malibu
Santa Monica
Malibu Point
Point Dume
Santa Monica Bay
DUME CANYON
SANTA MONICA CANYON
Current CINMS Working Boundary Concept (as of 9/22/03)
CABRILLO PORT (not to scale)
0 5 10 15 20 25 miles
0 25 kilometers
N
MAP AREA
SANTA BARBARA
VENTURA
LOS ANGELES
ORAN
Santa Barbara
Oxnard
Los Angeles
Long Beach
San Miguel Is.
Santa Cruz Is.
Anacapa Is.
Santa Rosa Is.
San Nicolas Is.
Santa Barbara Is.
Santa Catalina Is.
Current CINMS Working Boundary Concept
Pacific Ocean
35°
34°
120°
119°
118°
Proposed project
Reliant Energy Ormond Beach/Center Road (proposed)
Map depicts approximate locations based on best available data.
Bathymetric contours are in fathoms.
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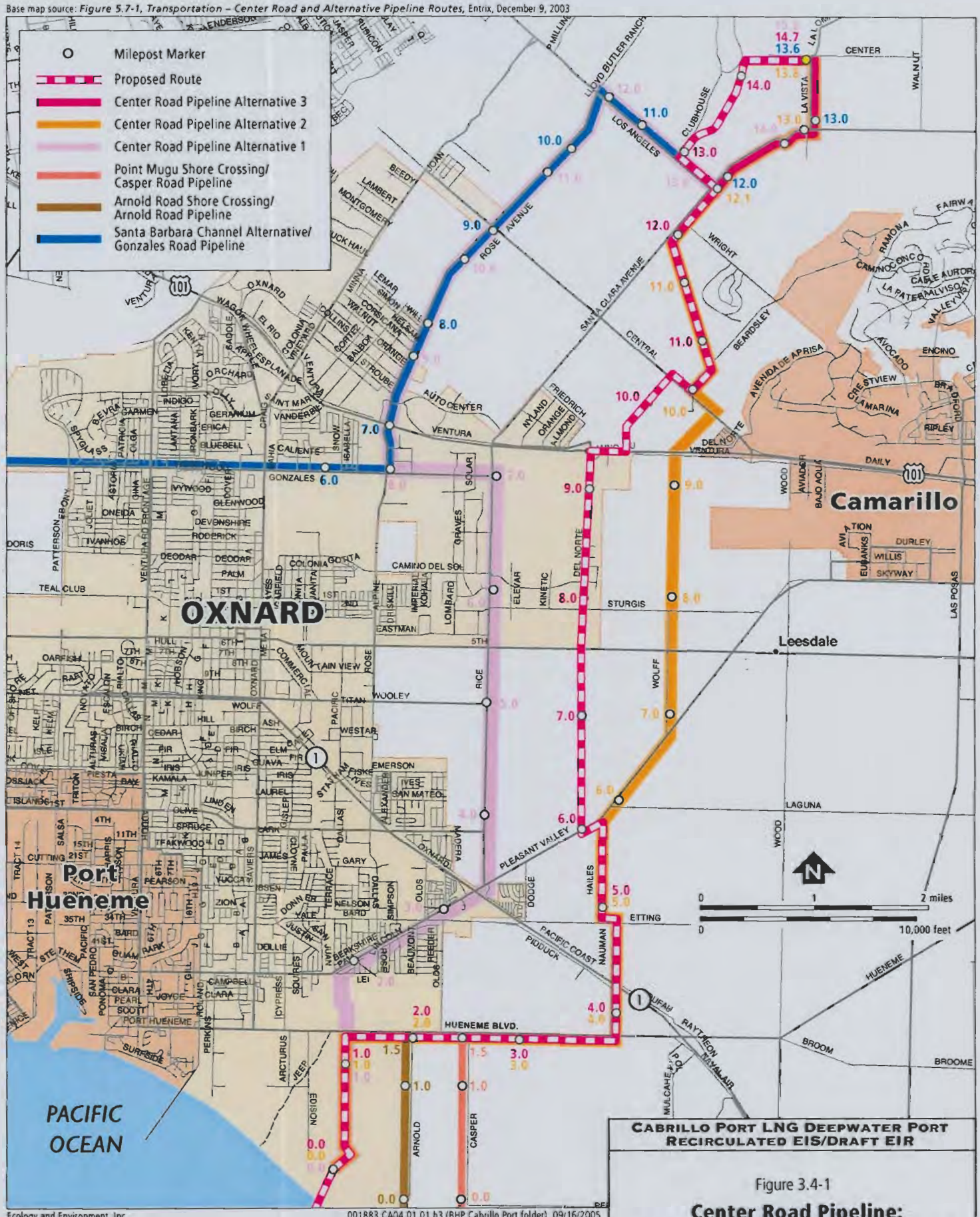
CABRILLO PORT LNG DEEPWATER PORT
RECIRCULATED EIS/DRAFT EIR
Figure 1.0-1
Proposed Cabrillo Port Liquefied Natural Gas Deepwater Port Facilities
001883.CA04.03.00.g2 (BHP Cabrillo Port folder) 09/08/2005

Figure 1

Base map source: *Figure 5.7-1, Transportation – Center Road and Alternative Pipeline Routes,* Entrix, December 9, 2003

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001883.CA04.01.01.b3 (BHP Cabrillo Port folder) 09/16/2005

Figure 2

**CABRILLO PORT LNG DEEPWATER PORT**
**RECIRCULATED EIS/DRAFT EIR**

Figure 3.4-1

**Center Road Pipeline: Proposed and Alternative Routes**

Base map source: *Figure 5.7-2, Transportation for the Line 225 Loop and Alternative Routes*, Entrix, May 3, 2004

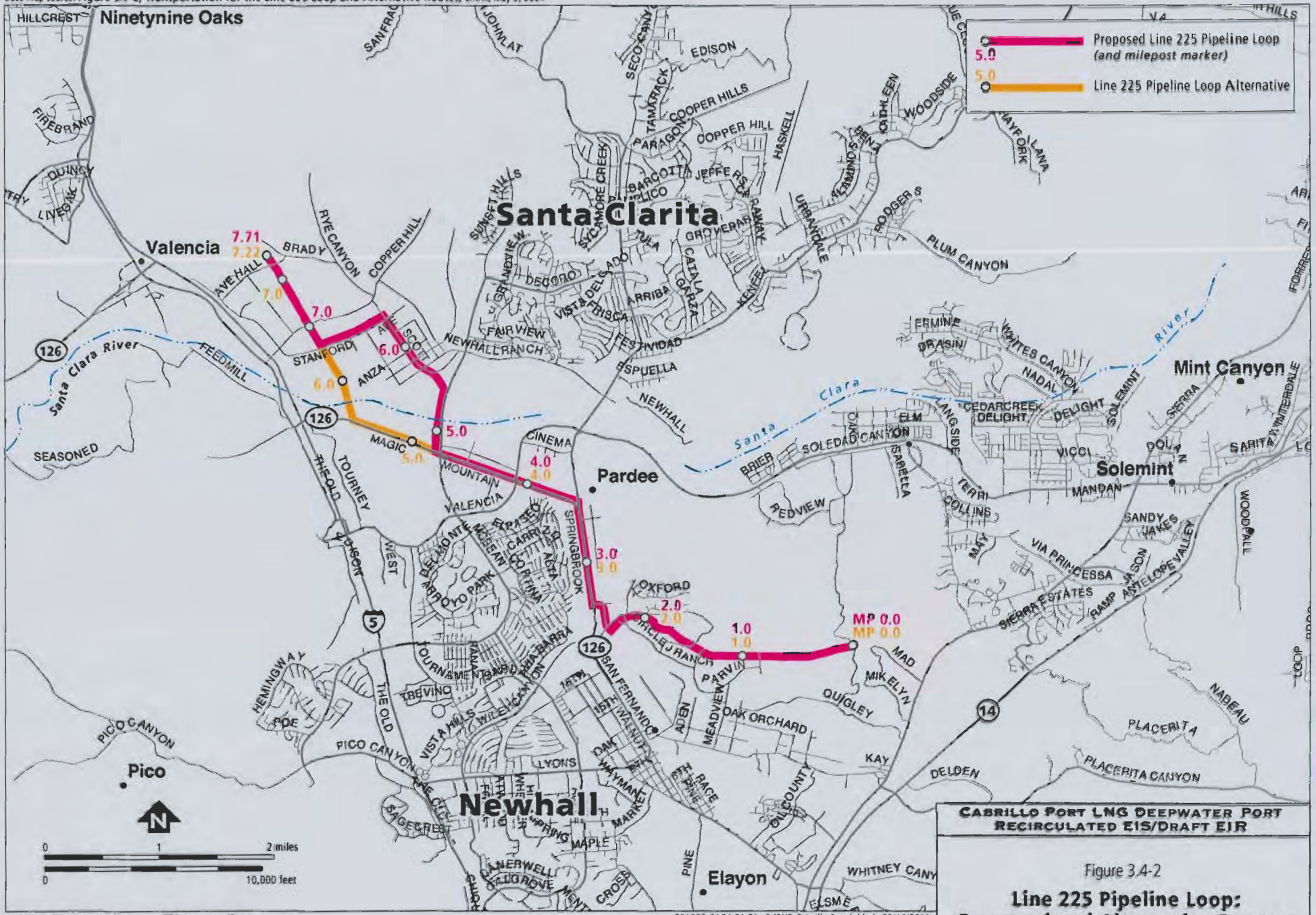


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Figure 2a

001883.CA04.01.01.c2 (BHP Cabrillo Port folder) 09/16/2005

CABRILLO PORT LNG DEEPWATER PORT
RECIRCULATED EIS/DRAFT EIR

Figure 3.4-2

**Line 225 Pipeline Loop:**
**Proposed and Alternative Routes**

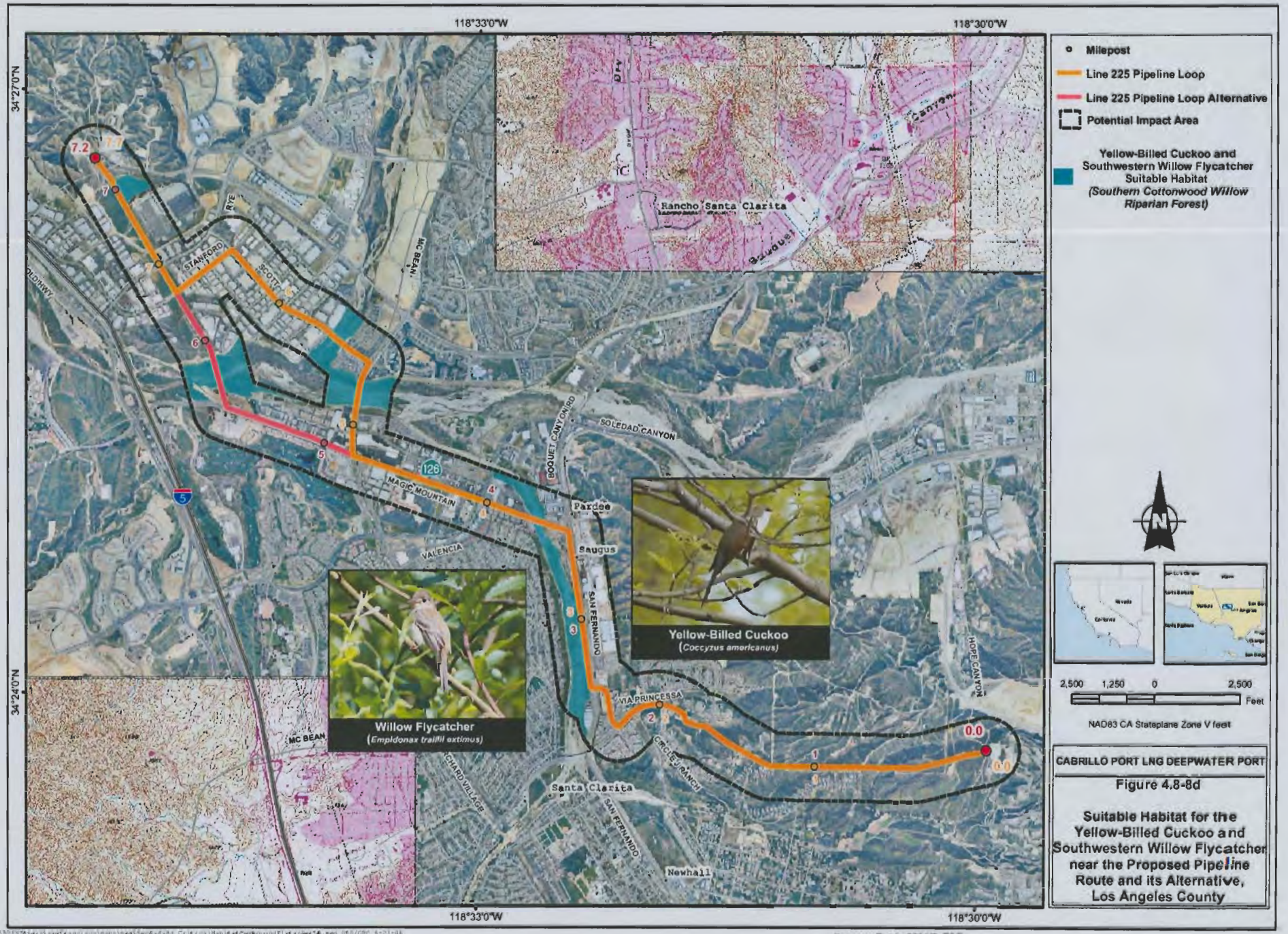
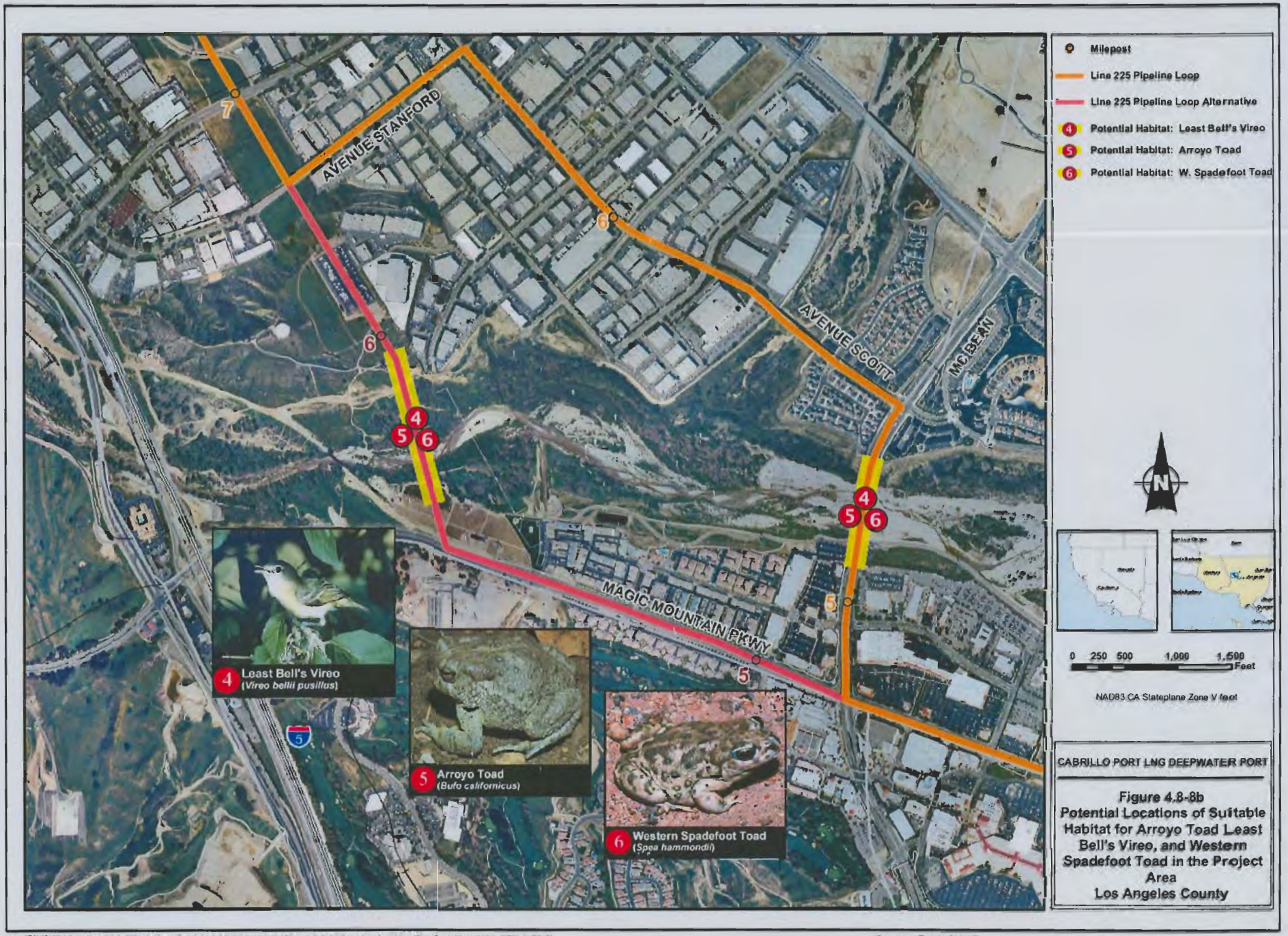

118°33'0"W
118°30'0"W
34°27'0"N
34°24'0"N
Milepost
Line 225 Pipeline Loop
Line 225 Pipeline Loop Alternative
Potential Impact Area
Yellow-Billed Cuckoo and Southwestern Willow Flycatcher Suitable Habitat
(Southern Cottonwood Willow Riparian Forest)
Rancho Santa Clarita
Yellow-Billed Cuckoo
(Coccyzus americanus)
Willow Flycatcher
(Empidonax traillii extimus)
SOLEDAD CANYON
MAGIC MOUNTAIN
VALENCIA
Saugus
Pardee
SAN FERNANDO
VIA PRINCESSA
Santa Clarita
Newhall
HOPE CANYON
BOUQUET CANYON RD
MC BEAN
STANFORD RYE
SCOTT
CHARD VILLAGE
CIRCLE J RANCH
2,500 1,250 0 2,500
Feet
NAD83 CA Stateplane Zone V feet
CABRILLO PORT LNG DEEPWATER PORT
Figure 4.8-8d
Suitable Habitat for the Yellow-Billed Cuckoo and Southwestern Willow Flycatcher near the Proposed Pipeline Route and its Alternative, Los Angeles County
Source: Entrix 2004/5, E&E

Figure 3




Source: Entrix 2004/5

Figure 4

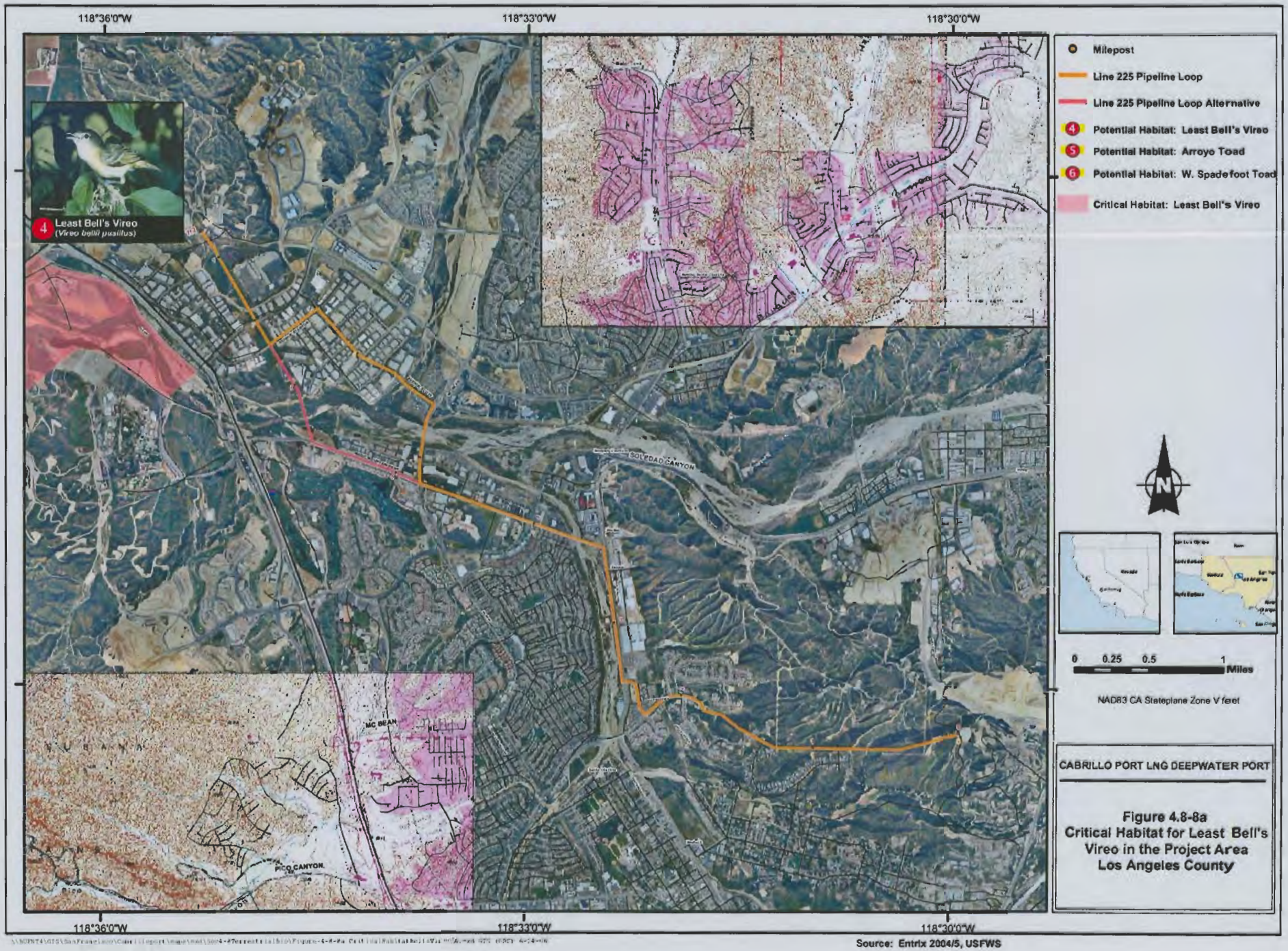
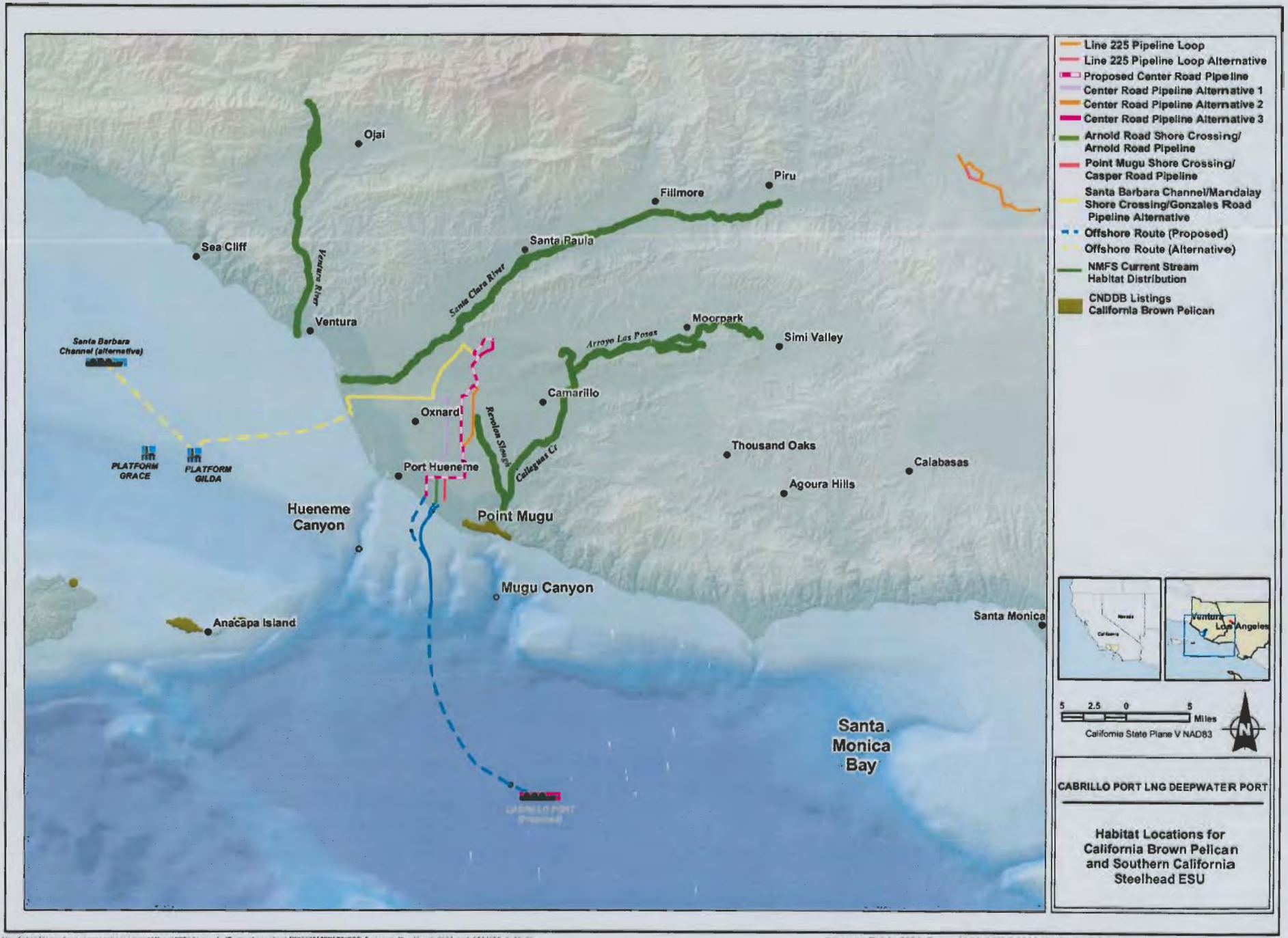

118°36'0"W
118°33'0"W
118°30'0"W
4 Least Bell's Vireo
(Vireo bellii pusillus)
Milepost
Line 225 Pipeline Loop
Line 225 Pipeline Loop Alternative
4 Potential Habitat: Least Bell's Vireo
5 Potential Habitat: Arroyo Toad
6 Potential Habitat: W. Spadefoot Toad
Critical Habitat: Least Bell's Vireo
SOLEDAD CANYON
MC BEAN
PICO CANYON
N
0 0.25 0.5 1 Miles
NAD83 CA Stateplane Zone V feet
CABRILLO PORT LNG DEEPWATER PORT
Figure 4.8-8a
Critical Habitat for Least Bell's Vireo in the Project Area
Los Angeles County
Source: Entrix 2004/5, USFWS

Figure 4a

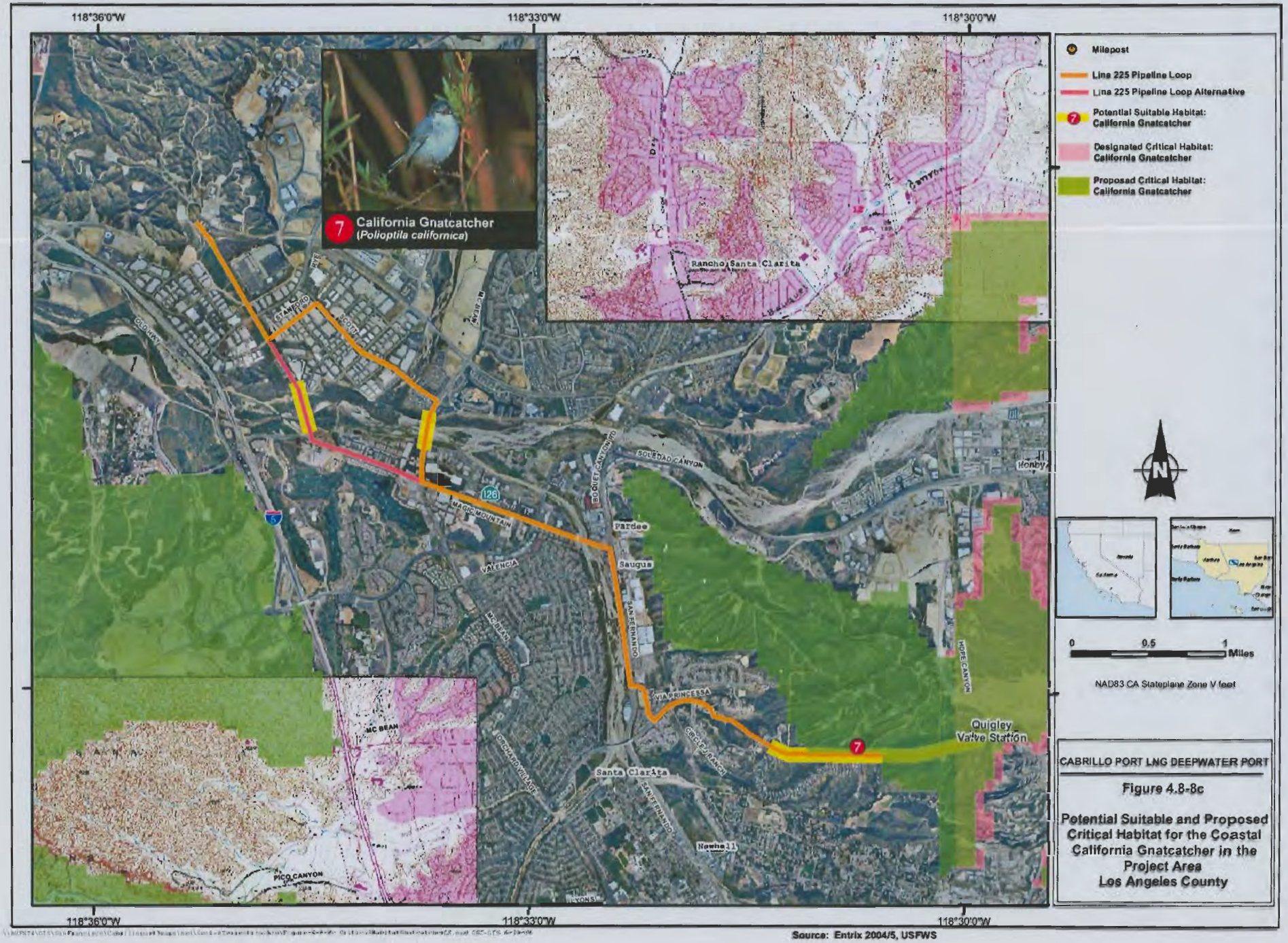

119°12'0"W
119°6'0"W
34°6'0"N
Milepost
Resource Area (1 mile)
Special Status Species Study Area (5 mile)
Proposed Center Road Pipeline
Center Road Pipeline Alternative 1
Center Road Pipeline Alternative 2
Center Road Pipeline Alternative 3
Arnold Road Shore Crossing/ Arnold Road Pipeline
Point Mugu Shore Crossing/ Casper Road Pipeline
HDB Entrance Point
HDB Alignment
Special Status Plants
Coulter's goldfields
Salt marsh bird's-beak
Special Status Wildlife
Belding's savannah sparrow
California least tern
Globose dune beetle
Monarch Butterfly
Wandering (=saltmarsh) skipper
Western snowy plover
Tidewater goby
Ormond Beach Generating Station
HDB Staging Area
Center Road Station
1:619,915
4 2 0 4
Miles
1
N
Ventura
Los Angeles
2,000 1,000 0 2,000 4,000 6,000
Feet
NAD83 CA Stateplane Zone 5 feet
CABRILLO PORT LNG DEEPWATER PORT
Figure 4.8-3a
Special Status Plant, Wildlife, and Natural Communities within a Five-Mile Radius of the Proposed Pipeline and its Alternatives
Ventura County
Source: Entrix 2004/5

Figure 5




Source: Entrix 2004, Fugro 2005, NMFS 2006, CNDDB 2006

Figure 6




Source: Entrix 2004/5, USFWS

Figure 7

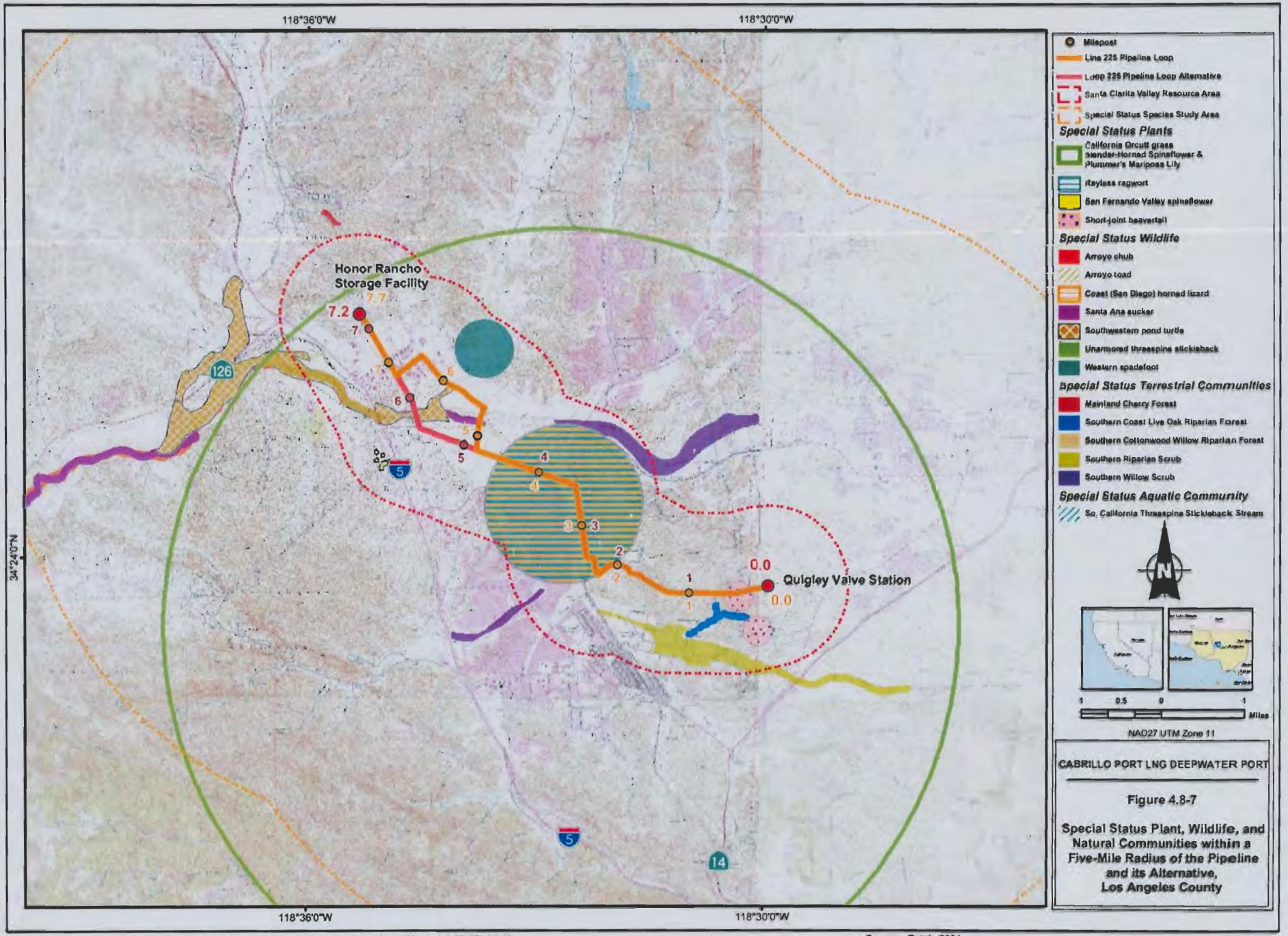

118°36'0"W
118°30'0"W
34°24'0"N
Honor Rancho Storage Facility
7.2
7.7
0.0
Quigley Valve Station
126
5
14
Milepost
Line 225 Pipeline Loop
Loop 225 Pipeline Loop Alternative
Santa Clarita Valley Resource Area
Special Status Species Study Area
Special Status Plants
California Orcutt grass
Slender-Horned Spineflower & Plummer's Mariposa Lily
Raylass ragwort
San Fernando Valley spineflower
Short-joint beavertail
Special Status Wildlife
Arroyo chub
Arroyo toad
Coast (San Diego) horned lizard
Santa Ana sucker
Southwestern pond turtle
Unarmored threespine stickleback
Western spadefoot
Special Status Terrestrial Communities
Mainland Cherry Forest
Southern Coast Live Oak Riparian Forest
Southern Cottonwood Willow Riparian Forest
Southern Riparian Scrub
Southern Willow Scrub
Special Status Aquatic Community
So. California Threespine Stickleback Stream
N
1 0.5 0 1
Miles
NAD27 UTM Zone 11
CABRILLO PORT LNG DEEPWATER PORT
Figure 4.8-7
Special Status Plant, Wildlife, and Natural Communities within a Five-Mile Radius of the Pipeline and its Alternative, Los Angeles County
Source: Entrix 2004

Figure 8

Attachment 1

**Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP)**
(Appears in the Revised DEIR as AM TerrBio-2b)

Additional surveys would be conducted within any areas potentially impacted by project activities during construction or operation where special status plant species potentially occur. Surveys would be conducted in consultation and in coordination with agencies and according to any existing species-specific protocols. Results of these surveys would be used to develop the BRMIMP. The proposed mitigation measures to address effects from construction and maintenance activities on special status species would include the implementation of the BRMIMP. The BRMIMP would identify:

- All biological resources mitigation, monitoring and compliance conditions specified in any permits required for the project;
- All sensitive biological resources to be impacted avoided or mitigated by project construction, operation and closure;
- All required mitigation measures/avoidance strategies for each sensitive biological resource;
- All locations, on a map of suitable scale, of laydown areas and areas requiring temporary protection and avoidance during construction;
- All natural areas disturbed during construction will have pre- and post-construction photographs;
- Duration of biological monitoring and a description of monitoring methodologies and frequency;
- Success criteria for proposed mitigation; and
- Remedial measures to be implemented if success criteria are not met.

The BRMIMP would also include the following:

- Measures to avoid special status wildlife and plants and their habitats, during pipeline construction, operations and maintenance, including restrictions in sensitive coastal areas, mapping and avoidance of sensitive resources;
- Restoration of sensitive vegetation types (coastal and riparian) potentially impacted during pipeline installation or repair, in accordance with other relevant mitigation measures;
- Inclusion of measures in an Operations and Maintenance Plan to avoid and minimize impacts on special status wildlife, plant, bird nesting areas, and sensitive or protected habitats such as riparian areas during routine operation and maintenance activities;
- Creation of a map of the pipeline route depicting the location of all special status plants, wildlife and birds nesting areas, and wetlands, to be used during necessary vehicular travel, for pedestrian use, or during equipment placement, to avoid these resources;

- Prohibition of disturbance to and clearing of coastal, riparian and wetland vegetation during inspections. Travel and work areas would be flagged and fenced before repair work to identify and avoid impacts on sensitive habitats as depicted on the pipeline map; and

- Maintenance of records of mitigation implementation on file at the pipeline maintenance office.

Attachment 2

**Employee Environmental Awareness Program (EEAP)** (Appears in the Revised DEIR as AM TerrBio-2c)

The applicant will be required to conduct an Employee Environmental Awareness Program (EEAP) before groundbreaking to explain the applicable endangered species laws and any endangered species concerns to contractors' working in the area. Through the EEAP, all employees and subcontractors would be informed of the sensitive biological resources potentially occurring in the project area. Specifically, the EEAP would:

- Discuss the locations and types of sensitive biological resources on the project site and in adjacent areas;
- Discuss the important of removing trash from the work area and adhering to all other applicable Best Management Practices (BMPs);
- Cite the laws, policies, or other reasons for protecting these resources;
- Present the meaning of various temporary and permanent habitat protection measures;
- Describe what to do if previously unidentified sensitive resources are encountered;
- Identify whom to contact if there are further comments and questions regarding the material discussed in the program, and
- Each participant would sign a statement declaring that he/she understands and will abide by the guidelines set forth in the program materials.

In addition, the applicant will be responsible for ensuring that all project personnel and subcontractors adhere to the guidelines and restrictions. Additional training would be conducted as needed to update crews as they advance into sensitive areas and to educate new personnel brought on the job. Project personnel would receive a hardhat sticker or be issued a card verifying compliance with these measures. Also, a record of all personnel trained would be maintained and made available for compliance modification.

Attachment 3

**Biological Monitoring** (Appears in the Revised DEIR as AM TerrBio-2d)

The applicant will be required to use a qualified biological monitor to conduct the EEAP program and on-site biological monitoring as identified above. Minimum qualifications would be (1) Bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field; (2) three years of experience in field biology; (3) one year of field experience with resources found in or near the project area; (4) Ability to demonstrate the appropriate education and experience for the biological resource tasks that must be addressed during construction and operation. Specifically, the biological monitor would:

- Supervise and verify the implementation of the EEAP, the Erosion Control Plan, and the BRMIMP;
- Be present for all water crossings and for work in areas where sensitive plants have been identified;
- Be responsible for pre-construction surveys, administering the EEAP for construction crews, staking sensitive resources, on-site monitoring, documentation of violations and compliance, coordination with contract compliance inspectors, and post-construction documentation.
- Be qualified to recognize potential construction effects on these resources;
- Would ensure that State and/or Federal wetland protection guidelines are followed and that an adequate setback of at least 15 ft (4.6m) (or other distance mandated by the California Department of Fish and Game [CDFG] or the USFWS) is observed at wetland and/or riparian edges.

Attachment 4

**Confine Activity to Identified Right-of-Way (ROW)** (Appears in the Revised DEIR as AM TerrBio-2e)

The applicant will be required to limit all proposed roadway construction to the existing roadway surface wherever special status plants or near habitats occur adjacent to the roadway. In addition, the applicant would confine construction equipment to the roadway surface and would restrict associated activities to the 80 ft (24.4 m) ROW in all areas that support sensitive resources near work areas, as identified on Project maps. In sensitive areas that would be avoided by directional drilling, drill rigs and equipment staging would remain outside sensitive habitats, with an adequate buffer, consistent with established resource agency guidelines to avoid potential adverse effects on the resource. Work area boundaries would be delineated with flagging or other marking to minimize the potential for inadvertent worker intrusion into sensitive areas. Special habitat features identified by the biological monitor would be avoided, and previously disturbed areas within the proposed project ROW would be used for stockpiling excavated materials, equipment storage, and vehicle parking. During EEAP training, construction personnel would be informed of the importance of remaining within the designated ROW. The Lead Resource Coordinator, with support from biological monitor(s) as necessary, would ensure that construction equipment and associated activities avoid any disturbance of sensitive resources outside the ROW.

Attachment 5

**Pre-Construction Wildlife Surveys** (Appear in the Revised DEIR as MM TerrBio-5a)

To minimize the potential for causing mortality of local wildlife, the Applicant will be required to engage the services of a qualified wildlife biologist to conduct additional pre-construction surveys in advance of any vegetation clearing, or excavation or other activity that causes disturbance to surface soils. Surveys would be completed by a competent biologist, familiar with local birds, mammals, amphibians, and reptiles, with survey requirements including any relevant agency protocols, and survey seasons.

To further minimize the potential of causing direct mortality to wildlife, the Applicant will be required to implement the Employee Environmental Awareness Program (EEAP). Measures of the EEAP would include establishment of a slow vehicle speed limit to avoid vehicle-wildlife accidents; to identify, delineate and protect sensitive habitat; and to ensure a clean work environment and adherence to any other Best Management Practices (BMPs). Construction crews would be educated regarding sensitive wildlife that could be encountered and how to safely avoid them. The biological monitor would observe crew behavior to ensure that the requirements identified in the EEAP are implements.

Attachment 6

**Riparian Avoidance and Restoration** (Appears in the Revised DEIR as MM TerBio-2f)

The applicant will be required to avoid, minimize and compensate for impacts on riparian habitat during construction due to trenching or open cut crossings of waters of the U.S. by:

- Avoiding potential impacts on riparian forest by clearly identifying and marking important areas, boring under waters of the U.S. where feasible, and identifying any proposed riparian habitat removal (and subsequent restoration) locations;
- Consulting with the CDFG for any unavoidable impacts on riparian vegetation, and fencing riparian vegetation adjacent to work areas to prevent impacts;
- Preparing and implementing riparian restoration, including replanting and monitoring elements. Implementation of these measures shall be supervised and verified by an approved biological monitor;
- Before construction, identify methods to restore the beds and banks of waters of the U.S. to pre-construction conditions, including appropriate replacement ratios. Such methods shall be in accordance with issued permit conditions, or, at a minimum, a 3:1 replacement ration of habitat acreage and a 1:1 replacement ration of trees and shrubs present before construction, and
- Identifying restoration methods, including native tree and shrub species matching pre-construction conditions, understory native seed mix composition and application methods, planting methodology, description of monitoring efforts to measure replacement success, success criteria, and contingency measures for off-site habitat creation in the event migration measures are unsuccessful or success criteria are not satisfied.

Attachment 7

**Drilling Fluid Release Monitoring Plan** (Appears in the Revised DEIR as MM WAT-3a)

The applicant will be required to implement this plan to minimize the potential for releases of drilling fluids, to properly clean up drilling fluids in the event of a release, and notify appropriate agencies should a release occur. This plan will be included in the HDB Contingency Plan (see Attachment 9). Implementation of this Plan would minimize the potential for an accidental release of drilling fluids, and if such a release were to occur it would be quickly identified, reported to the appropriate agencies and as much of the spilled material as feasible would be recovered. The Plan would include the following:

- Maintaining containment equipment for drilling fluids on site
- Adding a non-toxic color to the dye to the drilling fluids to easily and quickly detect release of drilling fluids
- Ensuring that a qualified environmental monitor or suitably trained water quality specialist is onsite full time near sensitive habitat areas during HDB activities
- Stopping work immediately if there is any detection of bentonite seeps into surface water or sensitive habitats, for example, by a loss in pressure or visual observation of the dye or changes in turbidity or surface sheen
- Reporting all bentonite seeps into water of the State or sensitive habitat immediately to the Project's resource coordinator, the CSLC, the Los Angeles RWQCB, and the appropriate resource agencies: NOAA Fisheries, U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the California Department of Water Resources, the California Reclamation Board, the applicable city and county
- Cleaning up and properly disposing of any release of drilling fluids to the satisfaction of regulatory agencies

Attachment 8

**Spill Response Plan** (Appears in the Revised DEIR as **AM WAT-6b)**

Storm Water Pollution Prevention and Containment Plan (SWPPP)

- The State of California has adopted a general storm water permit covering non-point source discharges from certain industrial facilities and construction sites involving more than one acre. This Construction General Permit requires preparation of a Storm water Pollution Prevention and Containment Plan (SWPPP) and implementation of best management practices. The applicant will be required to develop a spill response plan to be incorporated into the SWPPP to identify specific measures to prevent, contain and clean up any spills that could enter surface water pathways. To further minimize sedimentation, spill containment/management measures would be implemented including applicable BMPs. These would include, but not be limited to, the use of silt fence and straw bale sediment barriers as needed. In addition, the applicant will be required to obtain an NPDES construction permit and adhere to any and all specific requirements.

Attachment 9

**Spill Containment/Management** (Appears in the Revised DEIR as MM TerrBio-1b)

The applicant will be required to implement the following measures to control and manage spills:

- When working near waterways, the contractor will be required to have an emergency spill containment kit to contain and remove spilled fuels and hydraulic fluids
- When feasible, equipment and vehicles shall be fueled and maintained in a designated Maintenance and Staging Area. Equipment refueling or storage of hazardous or petroleum materials shall not occur within 100 feet (30.5 m) of sensitive habitat, wetlands, beaches, streams, or other waterways. If a 100 ft (30.5m) buffer is not feasible for any given refueling activity, secondary containment shall be employed during the fuel transfer, and the transfer shall be continuously monitored to prevent accidental spills
- If a designated area is not available, construction equipment shall be stored and maintained at least 100 ft (30.5 m) from any jurisdictional stream channel, or as far away as available space allows in the ROW corridor. If this is not feasible at a particular crossing location because of space limitations or equipment breakdown, the Applicant will be required to implement best management practices (BMPs) to ensure that equipment, fuel, and spoils do not enter the stream channel. Examples of appropriate BMPs include safety fencing, secondary containment for fuel tanks and fuel transfers, drip pans, spill kits and proper disposal of waste products.

- All contaminated soils and materials shall be excavated and removed from the site and disposed of appropriately to prevent sensitive animal species from becoming exposed to or killed by the effects of fuel, oil, or other chemicals used during construction.

Attachment 10

**Erosion Control** (Appears in the Revised DEIR as AM TerrBio-1a)

To minimize sedimentation, the applicant will be required to implement the following measures during construction:

- Cleaning of vegetation would be confined to the minimal area needed to conduct the construction activities
- Any work near or adjacent to any stream, wetland, or waterway would be protected by installing erosion-control fencing or other devices such as hay bales, straw rolls, matting, or mulch
- Work near or in waters of the U.S. would be conducted in a manner that minimizes turbidity, erosion and other water quality impacts regulated by resource agencies
- Any construction debris that may be stored near or adjacent to streams or other waterways would be contained to prevent any erosion into the adjacent streams or waterways
- Construction equipment would be stored and maintained at least 50 ft (15.2 m) from streams or other waterways

At the completion of construction activities, disturbed soils would be stabilized and erosion-control fencing would remain until restoration activities ensure that soil is properly stabilized.

Attachment 11

**Pre-Construction Plant Surveys** (Appears in the Revised DEIR as AM TerrBio-2a)

The applicant will be required to conduct pre-construction surveys to further define the location of special status plants identified during the spring and summer 2005 surveys. The surveys would be conducted according to survey protocols established by the USGWS or the CDFG. These surveys would occur prior to initiation of construction activities.

The surveys would be conducted at the appropriate time of year in order to confirm the presence or absence of special status plants occurring within the project area. Results of the additional surveys would supplement the existing data and would be used to map sensitive areas for avoidance during construction. Any future maintenance activities would require new surveys and consultation with the USFWS and/or DCFG prior to ground disturbance. If listed plants were identified in the construction areas, the applicant would comply with the terms and conditions in the Biological Opinion (BO) for the project. Sensitive resources near construction areas would be identified and clearly marked for avoidance. Taking of Federal- or State-listed species would be avoided or would be consistent with appropriate permits and the terms and conditions in the BO.

Additional measure that would be undertaken includes the following:

- Delineation of habitat for special status species would be conducted by a qualified botanist. Flagging, mapping, and fencing would be used to protect any special status plants within 200 ft (61 m) of the ROW.

- Any special status plants within the 80 ft (24.4 m) ROW, work areas, access roads, and staging areas would be flagged, mapped on construction plans, and fenced to protect the area during construction.

- A biological monitor would supervise installation of construction fencing, and determine appropriate buffer distances. The monitor would have the authority to require installation of silt fencing in highly sensitive areas or under certain conditions where erosion could impact a special status plant or its habitat.

If sensitive resources cannot be avoided, no work would be authorized until the appropriate resource agencies determine that the action would not result in significant biological impacts.